Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P1357495

Luminaire Tested: 8ASL4-20VHE-3-40-UNV

Issue Date: 2/17/2026

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1357495
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-12)
Test Lab:	INNOVATION CENTER
Issue Date:	2/17/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	FAIL-SAFE
Catalog Number:	8ASL4-20VHE-3-40-UNV
Description:	8FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 4000K LEDS 3 ROW
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	16440.0 lumens
Efficiency:	N/A
Efficacy:	122.3 lumens/watt
Spacing Criteria (0/90/45):	1.21 / 1.3 / 1.39
Luminous Opening:	Rectangular w/ Sides (W: 0.33' x L: 7.98' x H: 0.1')
CIE Type:	Direct

Input Watts (W):	134.4
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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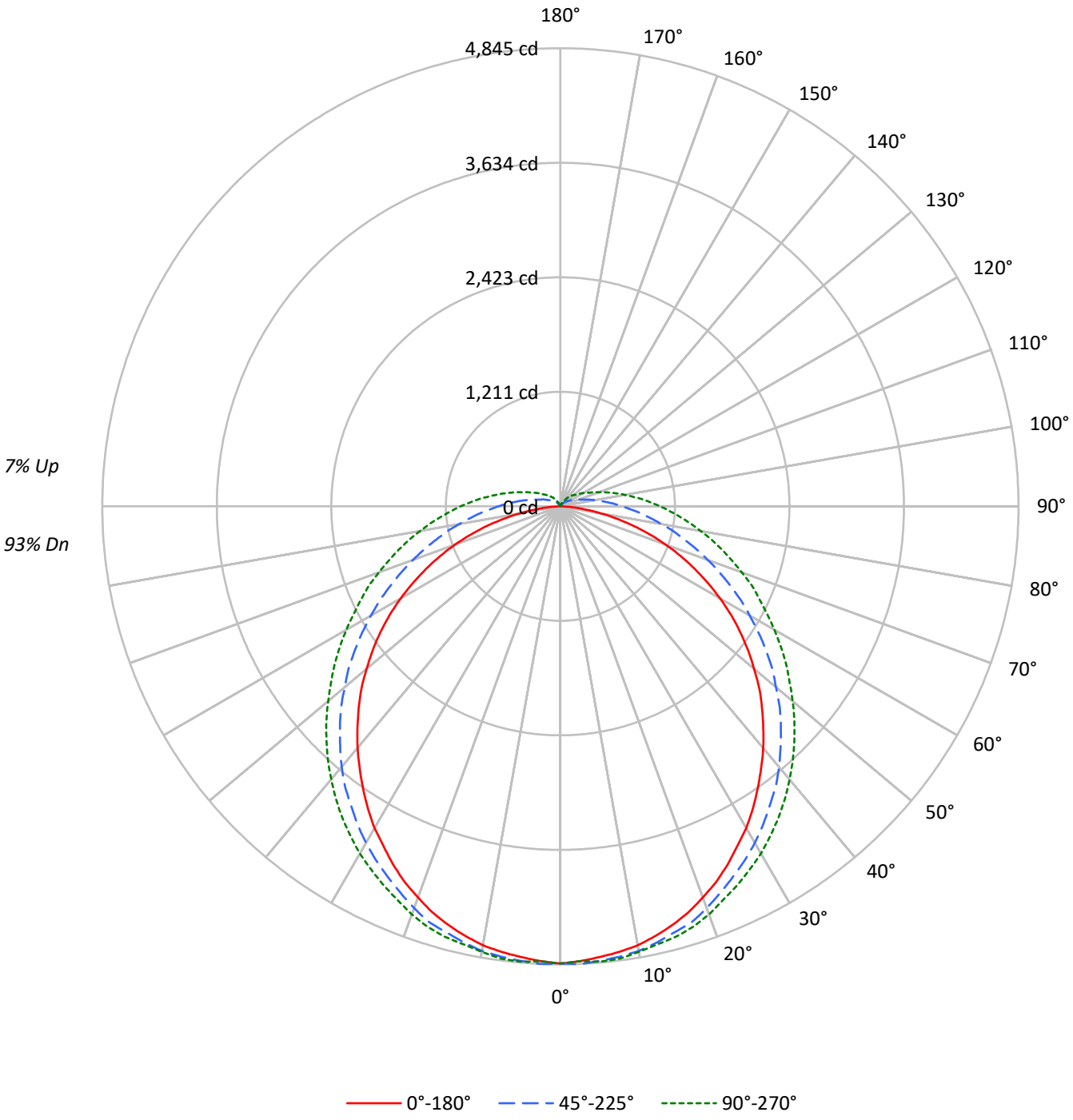
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	105	100	95	91	102	97	92	88	91	88	84	86	83	80	81	79	77	74
2	95	86	79	72	92	84	77	71	79	73	68	75	70	66	71	67	63	61
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	32	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	30	25	35	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19568	19568	19568
5°	19417	19215	19120
10°	19330	18857	18637
15°	19139	18407	18227
20°	18873	17976	17765
25°	18561	17431	17239
30°	18230	16959	16794
35°	17816	16424	16299
40°	17441	15935	15778
45°	17038	15340	15254
50°	16577	14701	14711
55°	16084	14092	14222
60°	15436	13380	13725
65°	14608	12696	13314
70°	13550	12023	12991
75°	11991	11414	12770
80°	9598	10975	12677
85°	6093	10927	12864

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 17038 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	458.5	2.8
10°-20°	1316.5	8.0
20°-30°	1990.4	12.1
30°-40°	2410.0	14.7
40°-50°	2531.3	15.4
50°-60°	2361.6	14.4
60°-70°	1951.7	11.9
70°-80°	1405.3	8.5
80°-90°	873.2	5.3
90°-100°	511.7	3.1
100°-110°	292.7	1.8
110°-120°	165.3	1.0
120°-130°	95.1	0.6
130°-140°	51.2	0.3
140°-150°	21.6	0.1
150°-160°	4.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3765.3	22.9
0°-40°	6175.4	37.6
0°-60°	11068.2	67.3
0°-90°	15298.4	93.1
90°-120°	969.7	5.9
90°-150°	1137.6	6.9
90°-180°	1142.0	6.9
0°-180°	16440.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4835	4835	4835	4835	4835	
5°	4785	4825	4825	4825	4835	455
15°	4584	4644	4664	4694	4715	1292
25°	4182	4252	4323	4383	4423	1926
35°	3639	3740	3860	3971	4021	2278
45°	3016	3126	3297	3438	3498	2327
55°	2322	2453	2654	2845	2915	2075
65°	1568	1719	1980	2232	2322	1552
75°	804	1005	1357	1649	1769	851
85°	151	452	854	1156	1267	184
90°	0	271	653	935	1056	7
95°	0	171	493	754	864	0
105°	0	60	271	472	553	0
115°	0	30	161	292	342	0
125°	0	20	100	191	221	0
135°	0	0	60	121	151	0
145°	0	0	30	70	80	0
155°	0	0	0	20	30	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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Scaled Data Report

TEST NUMBER: P1357495
CATALOG NUMBER: 8ASL4-20VHE-3-40-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4835.2	*4835.2*	4835.2	4835.2	4835.2
2.5°	*4815.1*	*4845.3*	*4845.3*	*4815.1*	*4815.1*
5°	4785.0	*4825.2*	4825.2	4825.2	4835.2
7.5°	4754.8	*4805.1*	4805.1	4805.1	4825.2
10°	4714.6	*4764.9*	4774.9	4774.9	4785.0
12.5°	4654.3	*4714.6*	4724.6	4734.7	4744.8
15°	4583.9	*4644.2*	4664.3	4694.5	4714.6
17.5°	4503.5	*4573.9*	4614.1	4644.2	4664.3
20°	4403.0	*4473.3*	4523.6	4563.8	4594.0
22.5°	4302.4	*4362.8*	4423.1	4473.3	4503.5
25°	4181.8	*4252.2*	4322.6	4382.9	4423.1
27.5°	4051.1	*4131.6*	4222.0	4292.4	4332.6
30°	3930.5	*4010.9*	4111.4	4201.9	4242.1
32.5°	3789.8	*3880.2*	3990.8	4081.3	4131.6
35°	3639.0	*3739.5*	3860.1	3970.7	4021.0
37.5°	3488.2	*3588.7*	3739.5	3850.1	3900.3
40°	3337.4	*3437.9*	3598.8	3719.4	3769.7
42.5°	3176.6	*3277.1*	3448.0	3578.7	3639.0
45°	3015.7	*3126.3*	3297.2	3437.9	3498.2
47.5°	2854.9	*2965.5*	3146.4	3297.2	3357.5
50°	2673.9	*2794.6*	2975.5	3146.4	3206.7
52.5°	2503.1	*2623.7*	2824.7	2995.6	3055.9
55°	2322.1	*2452.8*	2653.8	2844.8	2915.2
57.5°	2141.2	*2271.9*	2483.0	2684.0	2764.4
60°	1950.2	*2090.9*	2312.1	2523.2	2613.6
62.5°	1759.2	*1910.0*	2151.2	2372.4	2462.8
65°	1568.2	*1719.0*	1980.3	2231.6	2322.1
67.5°	1377.2	*1538.0*	1819.5	2080.9	2191.4
70°	1186.2	*1357.1*	1658.7	1930.1	2040.6
72.5°	995.2	*1176.1*	1507.9	1789.3	1899.9
75°	804.2	*1005.2*	1357.1	1648.6	1769.2
77.5°	613.2	*844.4*	1226.4	1517.9	1638.5
80°	442.3	*703.7*	1085.7	1387.2	1507.9
82.5°	281.5	*562.9*	965.0	1266.6	1387.2
85°	150.8	*452.4*	854.5	1156.0	1266.6
87.5°	50.3	*351.8*	743.9	1045.5	1156.0
90°	0.0	*271.4*	653.4	934.9	1055.5
92.5°	0.0	*211.1*	573.0	844.4	955.0
95°	0.0	*170.9*	492.6	753.9	864.5
97.5°	0.0	*140.7*	432.3	673.5	774.0
100°	0.0	*110.6*	371.9	603.1	693.6
102.5°	0.0	*90.5*	321.7	532.8	623.3
105°	0.0	*60.3*	271.4	472.5	552.9
107.5°	0.0	*50.3*	231.2	422.2	492.6
110°	0.0	*40.2*	211.1	361.9	432.3

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CATALOG NUMBER: 8ASL4-20VHE-3-40-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	*30.2*	191.0	321.7	392.0
115°	0.0	*30.2*	160.8	291.5	341.8
117.5°	0.0	*30.2*	140.7	261.4	311.6
120°	0.0	*20.1*	130.7	231.2	281.5
122.5°	0.0	*20.1*	110.6	211.1	251.3
125°	0.0	*20.1*	100.5	191.0	221.2
127.5°	0.0	*10.1*	90.5	170.9	201.0
130°	0.0	*10.1*	80.4	150.8	180.9
132.5°	0.0	*10.1*	70.4	140.7	170.9
135°	0.0	*0.0*	60.3	120.6	150.8
137.5°	0.0	*0.0*	50.3	110.6	130.7
140°	0.0	*0.0*	40.2	90.5	120.6
142.5°	0.0	*0.0*	30.2	80.4	100.5
145°	0.0	*0.0*	30.2	70.4	80.4
147.5°	0.0	*0.0*	20.1	50.3	70.4
150°	0.0	*0.0*	10.1	40.2	50.3
152.5°	0.0	*0.0*	0.0	30.2	40.2
155°	0.0	*0.0*	0.0	20.1	30.2
157.5°	0.0	*0.0*	0.0	0.0	10.1
160°	0.0	*0.0*	0.0	0.0	0.0
162.5°	0.0	*0.0*	0.0	0.0	0.0
165°	0.0	*0.0*	0.0	0.0	0.0
167.5°	0.0	*0.0*	0.0	0.0	0.0
170°	0.0	*0.0*	0.0	0.0	0.0
172.5°	0.0	*0.0*	0.0	0.0	0.0
175°	0.0	*0.0*	0.0	0.0	0.0
177.5°	0.0	*0.0*	0.0	0.0	0.0
180°	0.0	*0.0*	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
	Ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
	Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
	Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	19.68	21.22	20.15	21.68	22.16	21.75	23.29	22.22	23.74	24.23
	3H	21.18	22.58	21.66	23.05	23.57	24.23	25.64	24.71	26.10	26.63
	4H	21.66	22.99	22.16	23.47	24.01	25.45	26.78	25.95	27.26	27.80
	6H	21.93	23.17	22.45	23.67	24.22	26.73	27.97	27.24	28.46	29.02
	8H	21.98	23.17	22.51	23.69	24.25	27.40	28.58	27.92	29.10	29.66
	12H	22.00	23.14	22.53	23.65	24.24	28.14	29.28	28.68	29.79	30.38
4H	2H	20.57	21.90	21.07	22.38	22.92	22.18	23.51	22.68	24.00	24.53
	3H	22.30	23.43	22.82	23.96	24.52	24.89	26.02	25.40	26.55	27.11
	4H	22.90	23.94	23.44	24.48	25.07	26.27	27.31	26.81	27.85	28.44
	6H	23.30	24.22	23.86	24.78	25.39	27.75	28.66	28.30	29.22	29.83
	8H	23.40	24.26	23.96	24.82	25.44	28.52	29.38	29.08	29.95	30.56
	12H	23.44	24.22	24.02	24.81	25.44	29.39	30.18	29.97	30.77	31.39
8H	4H	23.59	24.46	24.16	25.02	25.64	26.49	27.35	27.05	27.91	28.53
	6H	24.17	24.91	24.77	25.51	26.13	28.13	28.86	28.72	29.46	30.09
	8H	24.36	25.02	24.96	25.63	26.27	29.04	29.70	29.65	30.32	30.96
	12H	24.47	25.06	25.08	25.66	26.37	30.10	30.69	30.71	31.29	32.00
12H	4H	23.79	24.58	24.38	25.17	25.79	26.50	27.28	27.08	27.87	28.49
	6H	24.47	25.14	25.08	25.75	26.39	28.16	28.83	28.77	29.44	30.08
	8H	24.75	25.34	25.36	25.95	26.65	29.15	29.74	29.76	30.34	31.05

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LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-4

Test Date: 11/18/2025

Luminaire Tested: 4ASL-2-40-UNV-OPL-1_600mA

Data in this report applies to families of products including 4ASL

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.05

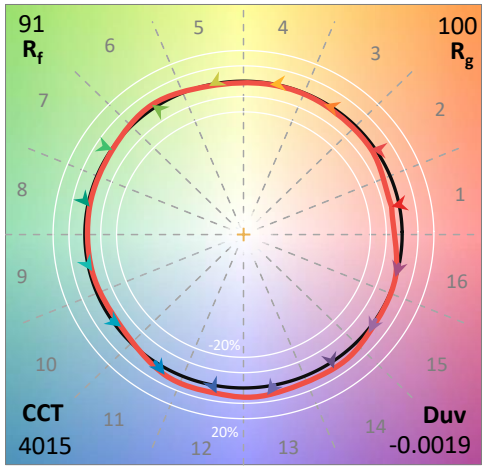
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2511-597-4
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	11/18/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Fail-Safe
Catalog Number:	**4ASL-2-40-UNV-OPL-1_600mA**
Description:	2foot 4ASL LED LUMINAIRE WITH OPL LENS AND 4000K LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K):	4015
CIE u':	0.2259
CIE v':	0.4990
Duv:	-0.0019
CIE x:	0.3785
CIE y:	0.3715
CIE z:	0.2500
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	580
Purity:	25.06827
Rf:	90.7
Rg:	100.2

CRI (Ra):	93.9
R1:	95.7
R2:	96.3
R3:	94.8
R4:	95.2
R5:	94.6
R6:	93.5
R7:	94.0
R8:	87.2
R9:	66.3
R10:	89.1
R11:	95.0
R12:	73.8
R13:	96.0
R14:	96.4
R15:	93.2



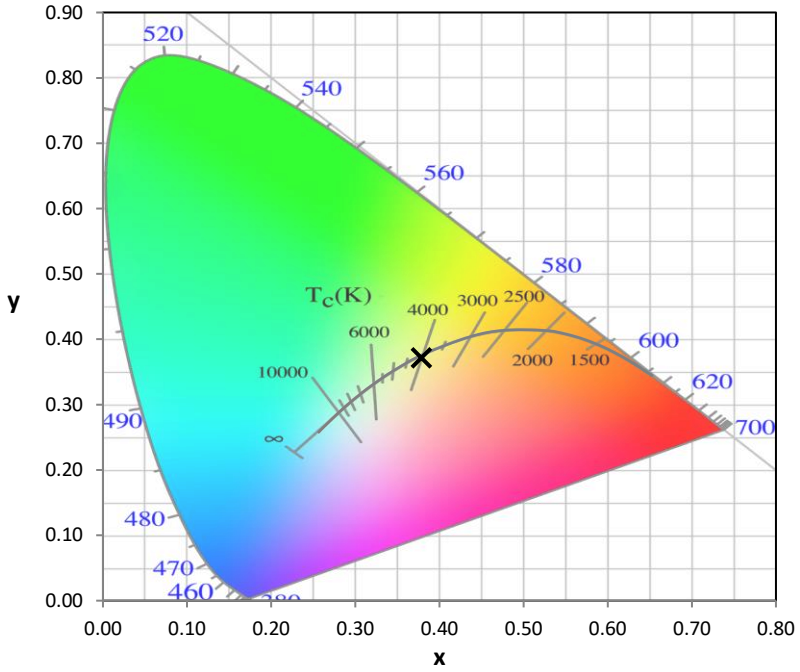
Test Conditions

Stabilization Time:	23M
Operation Time:	1H 23M
Sphere Temperature (°C):	24.1

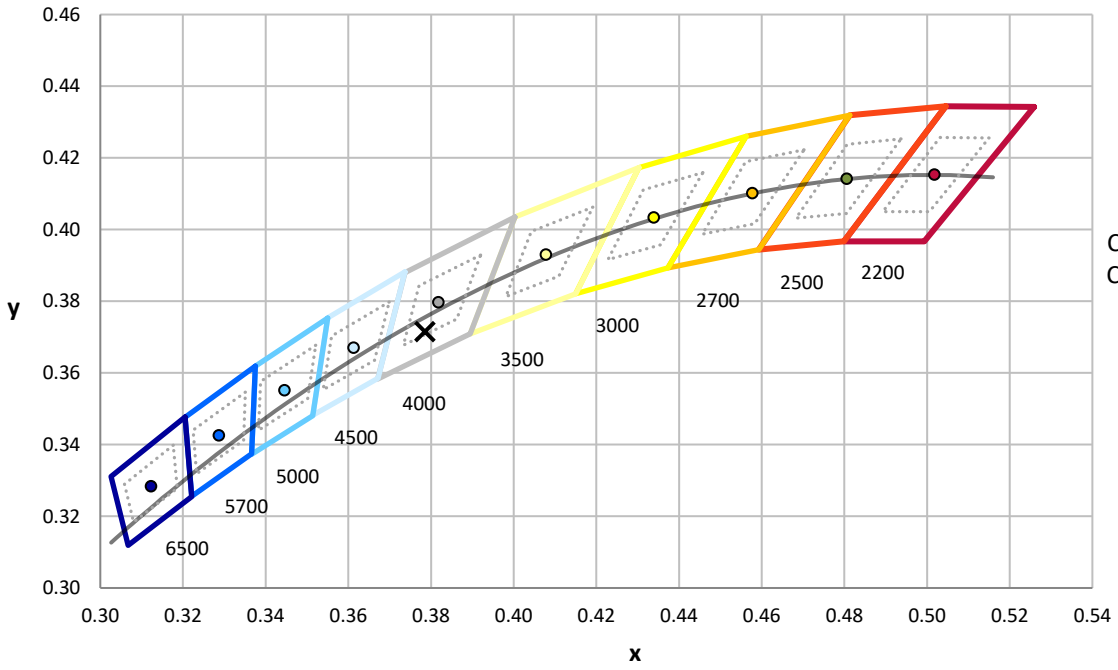
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	10/21/2025	10/21/2026
Sphere Thermometer	ONSET IN0085	10/21/2025	10/21/2026
Room Thermometer	ONSET IN0046	10/21/2025	10/21/2026

REPORT NUMBER: SP1-2511-597-4

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

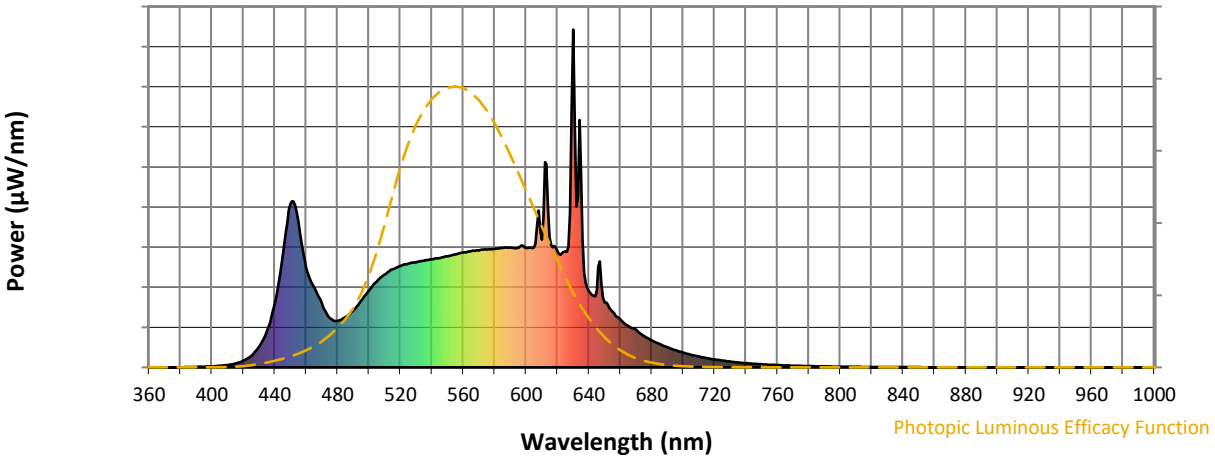


CCT = 4015K
CIE x = 0.3785
CIE y = 0.3715
Duv = -0.0019

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2511-597-4

Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	169	NR	620	343	NR	750	9	NR	880	0	NR
365	0	NR	495	197	NR	625	343	NR	755	8	NR	885	0	NR
370	0	NR	500	228	NR	630	1000	NR	760	7	NR	890	0	NR
375	0	NR	505	254	NR	635	591	NR	765	6	NR	895	0	NR
380	0	NR	510	274	NR	640	225	NR	770	5	NR	900	0	NR
385	1	NR	515	290	NR	645	229	NR	775	4	NR	905	0	NR
390	1	NR	520	300	NR	650	193	NR	780	4	NR	910	0	NR
395	2	NR	525	307	NR	655	165	NR	785	3	NR	915	0	NR
400	3	NR	530	311	NR	660	142	NR	790	3	NR	920	0	NR
405	5	NR	535	316	NR	665	122	NR	795	2	NR	925	0	NR
410	7	NR	540	320	NR	670	112	NR	800	2	NR	930	0	NR
415	11	NR	545	323	NR	675	93	NR	805	2	NR	935	0	NR
420	20	NR	550	329	NR	680	80	NR	810	2	NR	940	0	NR
425	35	NR	555	334	NR	685	69	NR	815	1	NR	945	0	NR
430	61	NR	560	340	NR	690	59	NR	820	1	NR	950	0	NR
435	108	NR	565	344	NR	695	51	NR	825	1	NR	955	0	NR
440	187	NR	570	346	NR	700	43	NR	830	1	NR	960	0	NR
445	329	NR	575	349	NR	705	37	NR	835	1	NR	965	0	NR
450	484	NR	580	351	NR	710	32	NR	840	1	NR	970	0	NR
455	433	NR	585	353	NR	715	27	NR	845	1	NR	975	0	NR
460	296	NR	590	354	NR	720	23	NR	850	1	NR	980	0	NR
465	237	NR	595	353	NR	725	20	NR	855	0	NR	985	0	NR
470	188	NR	600	354	NR	730	17	NR	860	0	NR	990	0	NR
475	146	NR	605	354	NR	735	15	NR	865	0	NR	995	0	NR
480	138	NR	610	378	NR	740	12	NR	870	0	NR	1000	0	NR
485	149	NR	615	385	NR	745	11	NR	875	0	NR			

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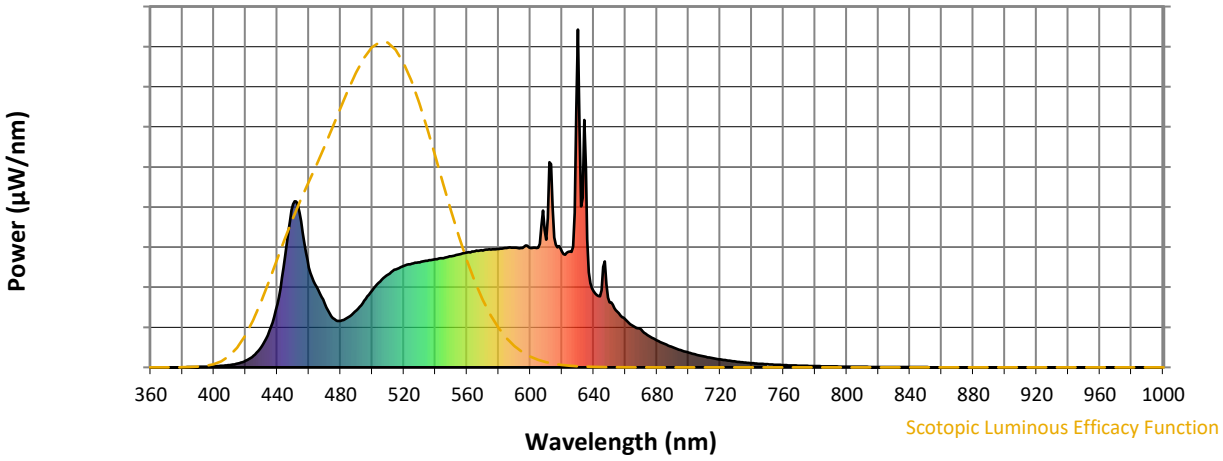
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.79**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	169	NR	620	343	NR	750	9	NR	880	0	NR
365	0	NR	495	197	NR	625	343	NR	755	8	NR	885	0	NR
370	0	NR	500	228	NR	630	1000	NR	760	7	NR	890	0	NR
375	0	NR	505	254	NR	635	591	NR	765	6	NR	895	0	NR
380	0	NR	510	274	NR	640	225	NR	770	5	NR	900	0	NR
385	1	NR	515	290	NR	645	229	NR	775	4	NR	905	0	NR
390	1	NR	520	300	NR	650	193	NR	780	4	NR	910	0	NR
395	2	NR	525	307	NR	655	165	NR	785	3	NR	915	0	NR
400	3	NR	530	311	NR	660	142	NR	790	3	NR	920	0	NR
405	5	NR	535	316	NR	665	122	NR	795	2	NR	925	0	NR
410	7	NR	540	320	NR	670	112	NR	800	2	NR	930	0	NR
415	11	NR	545	323	NR	675	93	NR	805	2	NR	935	0	NR
420	20	NR	550	329	NR	680	80	NR	810	2	NR	940	0	NR
425	35	NR	555	334	NR	685	69	NR	815	1	NR	945	0	NR
430	61	NR	560	340	NR	690	59	NR	820	1	NR	950	0	NR
435	108	NR	565	344	NR	695	51	NR	825	1	NR	955	0	NR
440	187	NR	570	346	NR	700	43	NR	830	1	NR	960	0	NR
445	329	NR	575	349	NR	705	37	NR	835	1	NR	965	0	NR
450	484	NR	580	351	NR	710	32	NR	840	1	NR	970	0	NR
455	433	NR	585	353	NR	715	27	NR	845	1	NR	975	0	NR
460	296	NR	590	354	NR	720	23	NR	850	1	NR	980	0	NR
465	237	NR	595	353	NR	725	20	NR	855	0	NR	985	0	NR
470	188	NR	600	354	NR	730	17	NR	860	0	NR	990	0	NR
475	146	NR	605	354	NR	735	15	NR	865	0	NR	995	0	NR
480	138	NR	610	378	NR	740	12	NR	870	0	NR	1000	0	NR
485	149	NR	615	385	NR	745	11	NR	875	0	NR			

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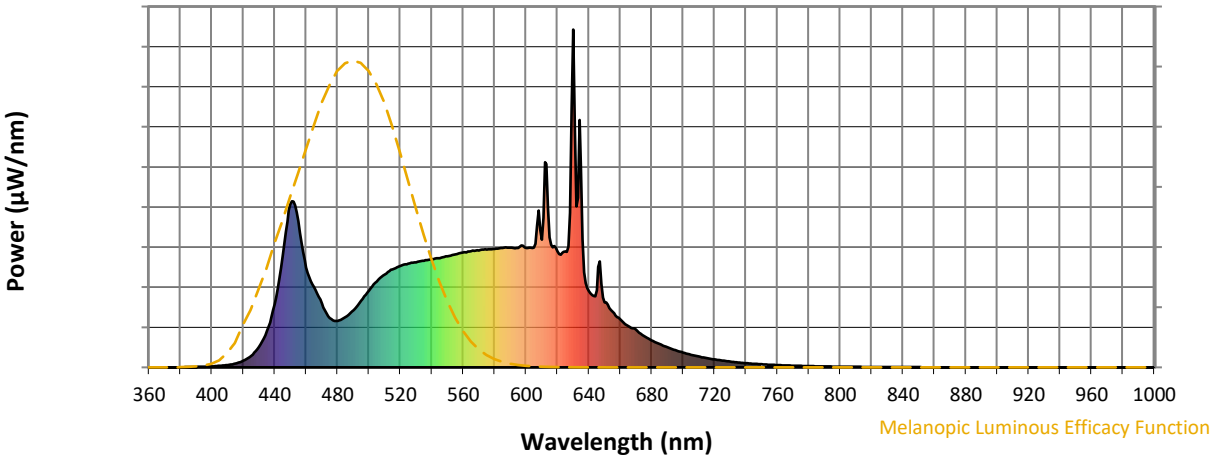
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.74**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	169	NR	620	343	NR	750	9	NR	880	0	NR
365	0	NR	495	197	NR	625	343	NR	755	8	NR	885	0	NR
370	0	NR	500	228	NR	630	1000	NR	760	7	NR	890	0	NR
375	0	NR	505	254	NR	635	591	NR	765	6	NR	895	0	NR
380	0	NR	510	274	NR	640	225	NR	770	5	NR	900	0	NR
385	1	NR	515	290	NR	645	229	NR	775	4	NR	905	0	NR
390	1	NR	520	300	NR	650	193	NR	780	4	NR	910	0	NR
395	2	NR	525	307	NR	655	165	NR	785	3	NR	915	0	NR
400	3	NR	530	311	NR	660	142	NR	790	3	NR	920	0	NR
405	5	NR	535	316	NR	665	122	NR	795	2	NR	925	0	NR
410	7	NR	540	320	NR	670	112	NR	800	2	NR	930	0	NR
415	11	NR	545	323	NR	675	93	NR	805	2	NR	935	0	NR
420	20	NR	550	329	NR	680	80	NR	810	2	NR	940	0	NR
425	35	NR	555	334	NR	685	69	NR	815	1	NR	945	0	NR
430	61	NR	560	340	NR	690	59	NR	820	1	NR	950	0	NR
435	108	NR	565	344	NR	695	51	NR	825	1	NR	955	0	NR
440	187	NR	570	346	NR	700	43	NR	830	1	NR	960	0	NR
445	329	NR	575	349	NR	705	37	NR	835	1	NR	965	0	NR
450	484	NR	580	351	NR	710	32	NR	840	1	NR	970	0	NR
455	433	NR	585	353	NR	715	27	NR	845	1	NR	975	0	NR
460	296	NR	590	354	NR	720	23	NR	850	1	NR	980	0	NR
465	237	NR	595	353	NR	725	20	NR	855	0	NR	985	0	NR
470	188	NR	600	354	NR	730	17	NR	860	0	NR	990	0	NR
475	146	NR	605	354	NR	735	15	NR	865	0	NR	995	0	NR
480	138	NR	610	378	NR	740	12	NR	870	0	NR	1000	0	NR
485	149	NR	615	385	NR	745	11	NR	875	0	NR			

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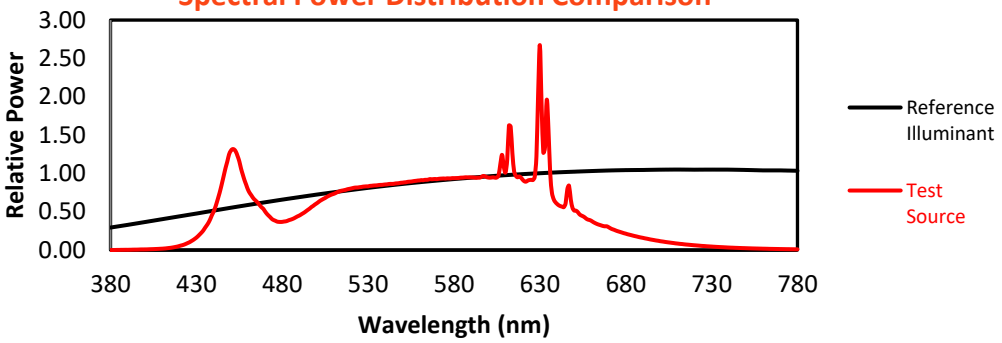
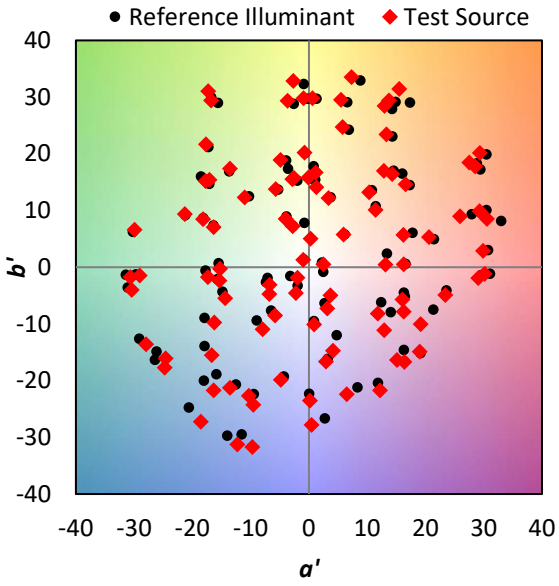
Summary

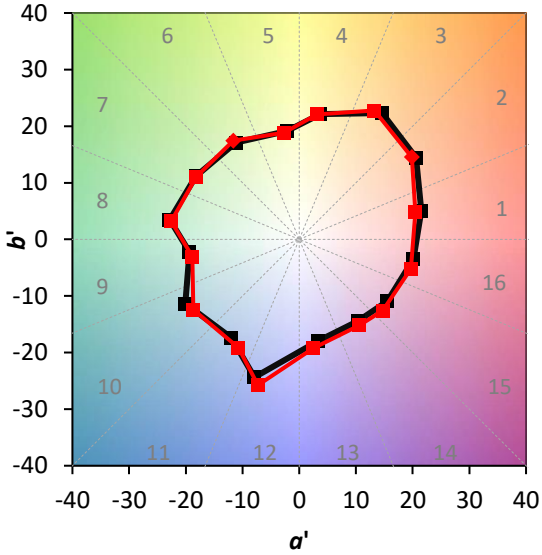
R_f = 90.7
R_g = 100.2
CIE R_a = 93.9
R_9 = 66.3

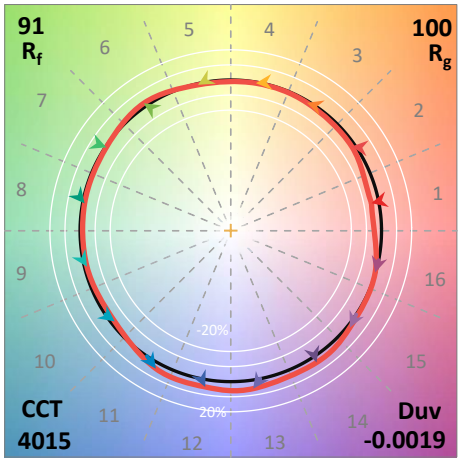
Spectral Power Distribution Comparison

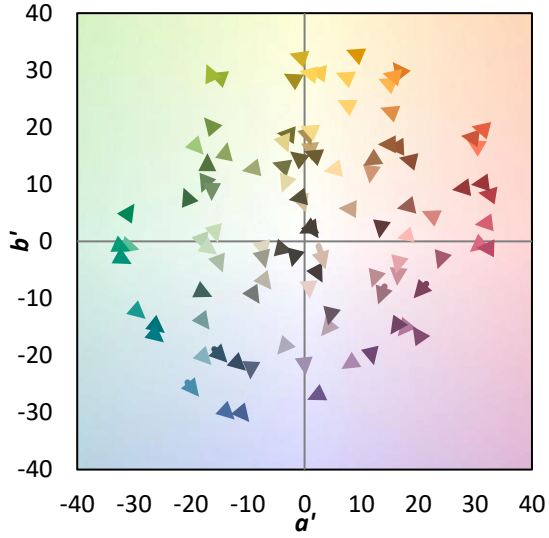


Color Vector Graphics









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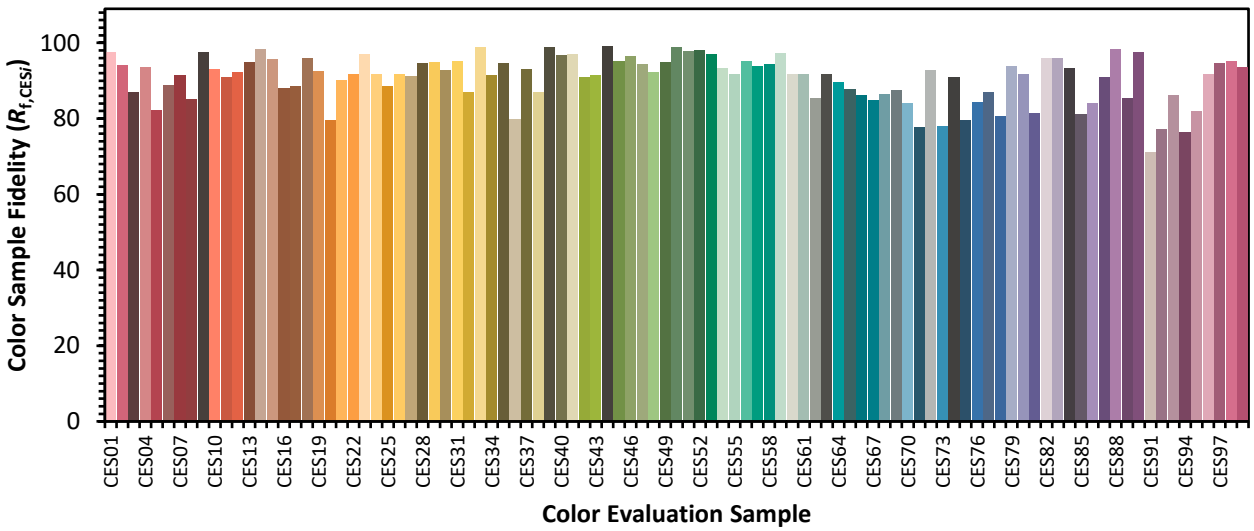
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 92	CES51 = 98	CES76 = 84
CES02 = 62	CES27 = 91	CES52 = 98	CES77 = 87
CES03 = 31	CES28 = 95	CES53 = 97	CES78 = 81
CES04 = 69	CES29 = 95	CES54 = 93	CES79 = 94
CES05 = 49	CES30 = 93	CES55 = 92	CES80 = 92
CES06 = 50	CES31 = 95	CES56 = 95	CES81 = 81
CES07 = 42	CES32 = 87	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 99	CES58 = 94	CES83 = 96
CES09 = 29	CES34 = 91	CES59 = 97	CES84 = 93
CES10 = 74	CES35 = 95	CES60 = 92	CES85 = 81
CES11 = 57	CES36 = 80	CES61 = 92	CES86 = 84
CES12 = 63	CES37 = 93	CES62 = 85	CES87 = 91
CES13 = 43	CES38 = 87	CES63 = 92	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 90	CES89 = 85
CES15 = 71	CES40 = 97	CES65 = 88	CES90 = 98
CES16 = 47	CES41 = 97	CES66 = 86	CES91 = 71
CES17 = 49	CES42 = 91	CES67 = 85	CES92 = 77
CES18 = 56	CES43 = 91	CES68 = 87	CES93 = 86
CES19 = 71	CES44 = 99	CES69 = 87	CES94 = 76
CES20 = 66	CES45 = 95	CES70 = 84	CES95 = 82
CES21 = 85	CES46 = 96	CES71 = 78	CES96 = 92
CES22 = 78	CES47 = 94	CES72 = 93	CES97 = 95
CES23 = 91	CES48 = 92	CES73 = 78	CES98 = 95
CES24 = 90	CES49 = 95	CES74 = 91	CES99 = 94
CES25 = 71	CES50 = 99	CES75 = 80	



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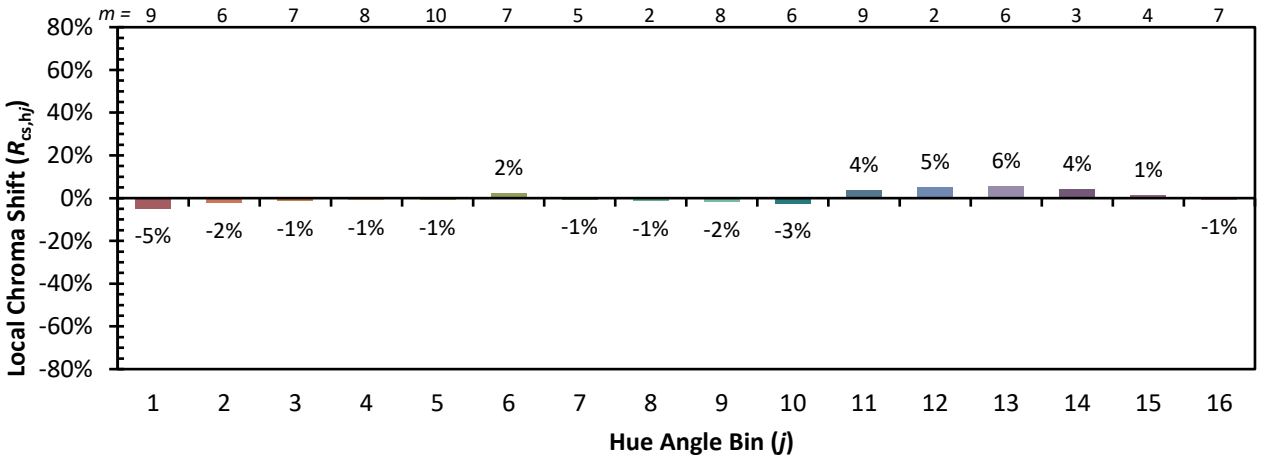
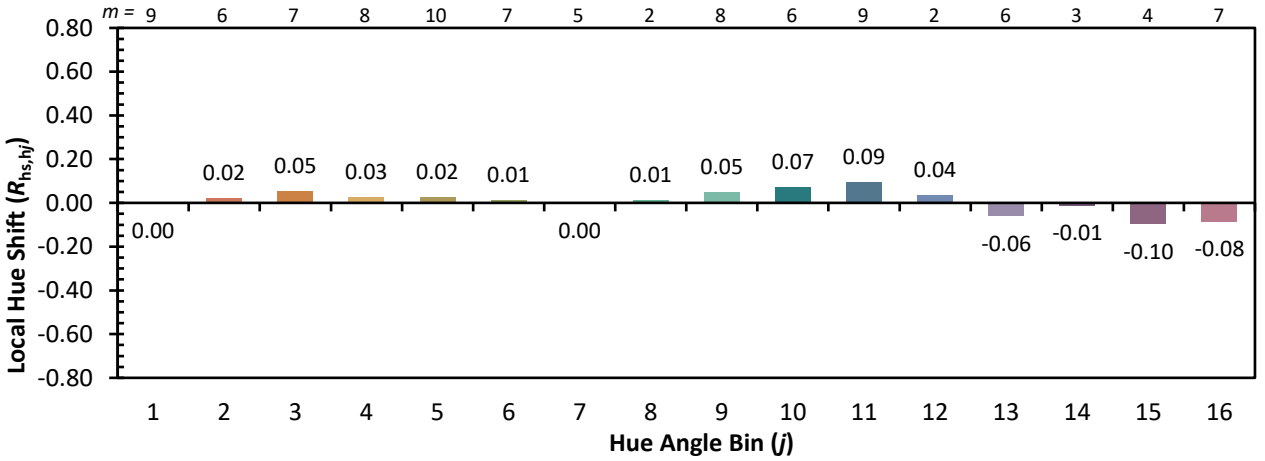
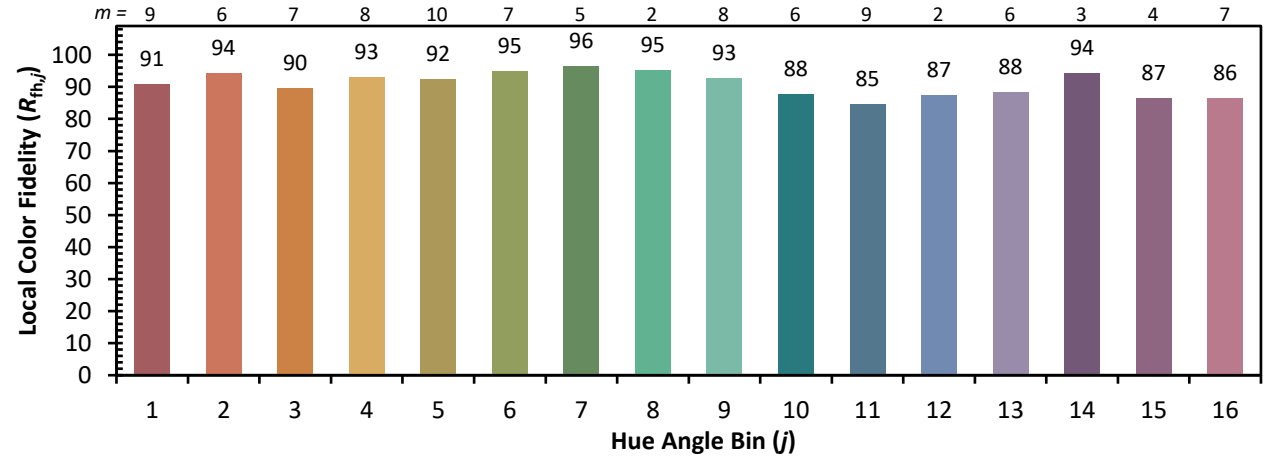
Color Rendition by Hue-Angle Bin







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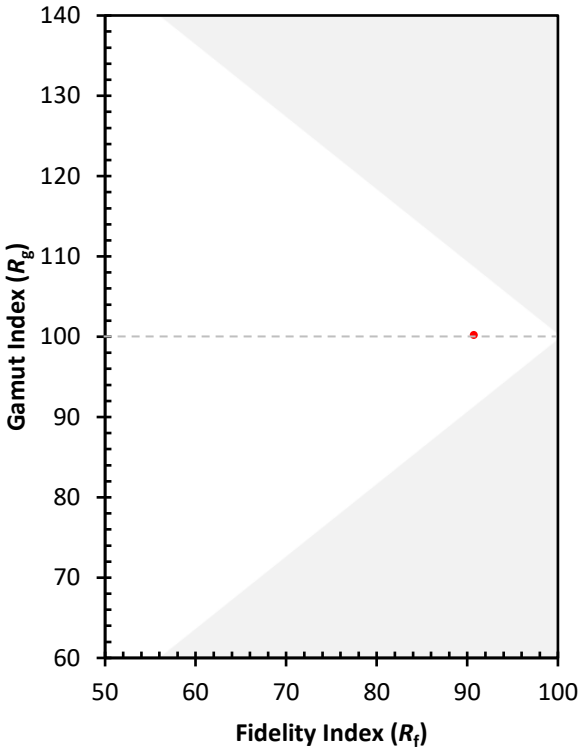
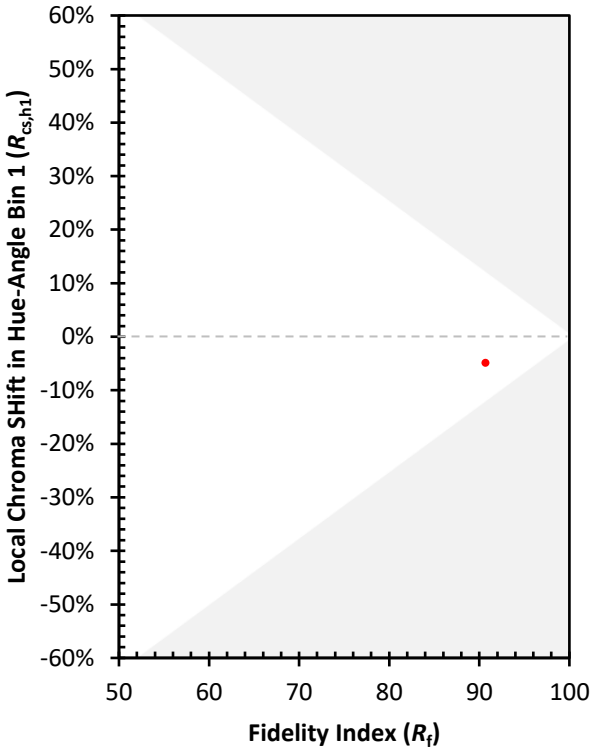
Measure Comparisons





(END OF REPORT)